


CRACKING
THE CASE WITH

FLEXBOX





Level 1 – Section 1

Foreshadowing Flexbox

A Display Type Created for Common Patterns

CSS Flexible Box Layout Module Level 1

Flexbox is a collection of CSS properties used to align content and distribute space.

Flex Containers: the `'flex'` and `'inline-flex'` `'display'` values

Flex Items

Absolutely-Positioned Flex Children
Flex Item Margins and Paddings
Flex Item Z-Ordering
Collapsed Items
Implied Minimum Size of Flex Items

Ordering and Orientation

Flex Flow Direction: the `'flex-direction'` property
Flex Line Wrapping: the `'flex-wrap'` property
Flex Direction and Wrap: the `'flex-flow'` shorthand
Display Order: the `'order'` property
Reordering and Accessibility

Flex Lines

Flexibility

The `'flex'` Shorthand
Basic Values of `'flex'`
Components of Flexibility
The `'flex-grow'` property
The `'flex-shrink'` property
The `'flex-basis'` property

Alignment

Aligning with auto margins

CSS Flexible Box Layout Module Level 1

W3C Candidate Recommendation, 26 May 2016

This version:

<http://www.w3.org/TR/2016/CR-css-flexbox-1-20160526/>

Latest published version:

<http://www.w3.org/TR/css-flexbox-1/>

Editor's Draft:

<https://drafts.csswg.org/css-flexbox/>

Previous Versions:

<http://www.w3.org/TR/2016/CR-css-flexbox-1-20160301/>
<http://www.w3.org/TR/2015/WD-css-flexbox-1-20150511/>
<http://www.w3.org/TR/2014/WD-css-flexbox-1-20140922/>
<http://www.w3.org/TR/2014/WD-css-flexbox-1-20140322/>
<http://www.w3.org/TR/2012/CR-css3-flexbox-20120918/>
<http://www.w3.org/TR/2012/WD-css3-flexbox-20120612/>
<http://www.w3.org/TR/2012/WD-css3-flexbox-20120322/>
<http://www.w3.org/TR/2011/WD-css3-flexbox-20111129/>
<http://www.w3.org/TR/2011/WD-css3-flexbox-20110322/>
<http://www.w3.org/TR/2009/WD-css3-flexbox-20090723/>

Feedback:

www-style@w3.org with subject line "[css-flexbox] ..."

Test Suite:

http://test.csswg.org/suites/css-flexbox-1_dev/nightly-ua/

Editors:

[Tab Atkins Jr.](#) (Google)

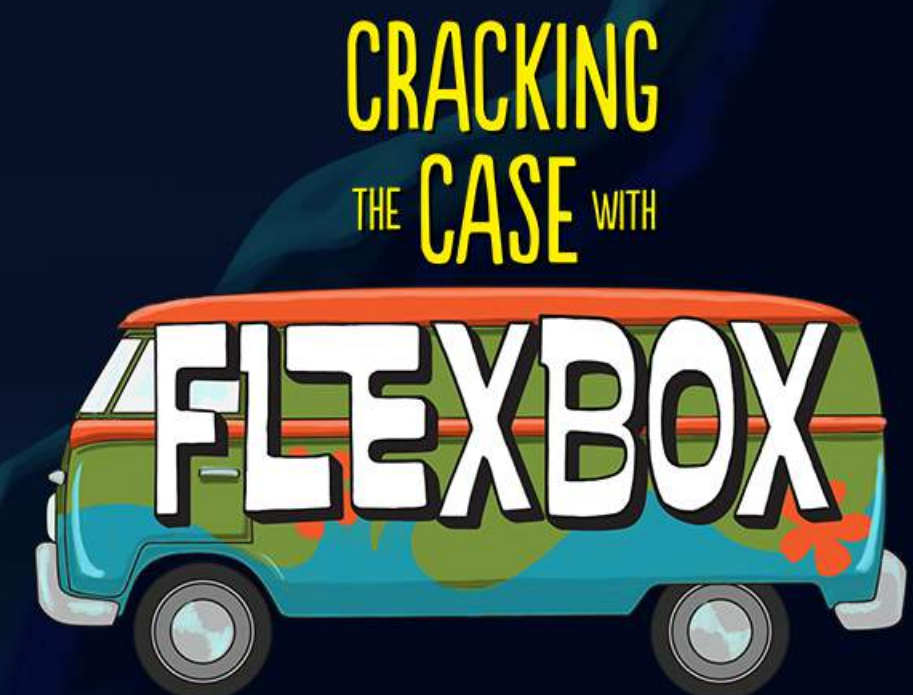
- Two new display values
- 11 new properties
- <http://go.codeschool.com/flexbox-spec>
- <http://go.codeschool.com/caniuse-flexbox>

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UI Patterns in Flexbox

- Equal heights
- Vertically centered content
- Media objects
- Sticky footers
- Column layouts



Flexbox Is a New Display Type

Flexbox adds flex containers, flex items, and flex lines in addition to new properties.

- Block layout
- Table layout
- Inline layout
- Positioning layout
- Flex layout
 - Flex containers
 - Flex items
 - Flex lines

*Learn about other layouts
and core HTML and CSS in
these courses.*



Default Behaviors of Elements

index.html

HTML

```
<article class="setup">This ...  
  <img height="150" height="150" ...>  
  <p>...</p>  
</article>
```

site.css

CSS

```
article {  
  border: 1px solid #d1eda6; }
```

display: block



display: inline

This pipe was found outside the door of the amusement park office, soon after the ghost was seen flying by.

display: block

Overriding Default Behaviors

index.html

HTML

```
<article class="setup">This ...  
  <img height="150" height="150" ...>  
  <p>...</p>  
</article>
```

site.css

CSS

```
article {  
  border: 1px solid #d1eda6;  
  display: inline; }
```

Collapsed



This pipe was found outside the door of the amusement park office, soon after the ghost was seen flying by.

Flex Containers Control Layout of Child Items

index.html

HTML

```
<article class="setup">This ...  
  <img height="150" height="150" ...>  
  <p>...</p>  
</article>
```

site.css

CSS

```
article {  
  border: 1px solid #d1eda6;  
  display: flex; }
```

Flex container



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Aligned horizontally

display: flex Creates a Block-level Container

index.html

HTML

```
<article class="setup">This ...  
  <img height="150" height="150" ...>  
  <p>...</p>  
</article>
```

site.css

CSS

```
article {  
  border: 1px solid #d1eda6;  
  display: flex; }
```



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Uses all available width

display: inline-flex Creates an Inline Container

index.html

HTML

```
<article class="setup">This ...  
  <img height="150" height="150" ...>  
  <p>...</p>  
</article>
```

site.css

CSS

```
article {  
  border: 1px solid #d1eda6;  
  display: inline-flex; }
```



This pipe was found outside the door of the amusement park office, soon after the ghost was seen flying by.

*Container adjusts to
width of the content*

Flex Items Are Distributed Along Flex Lines

Flex items are direct children of a flex container and can be HTML elements or text.

index.html

HTML

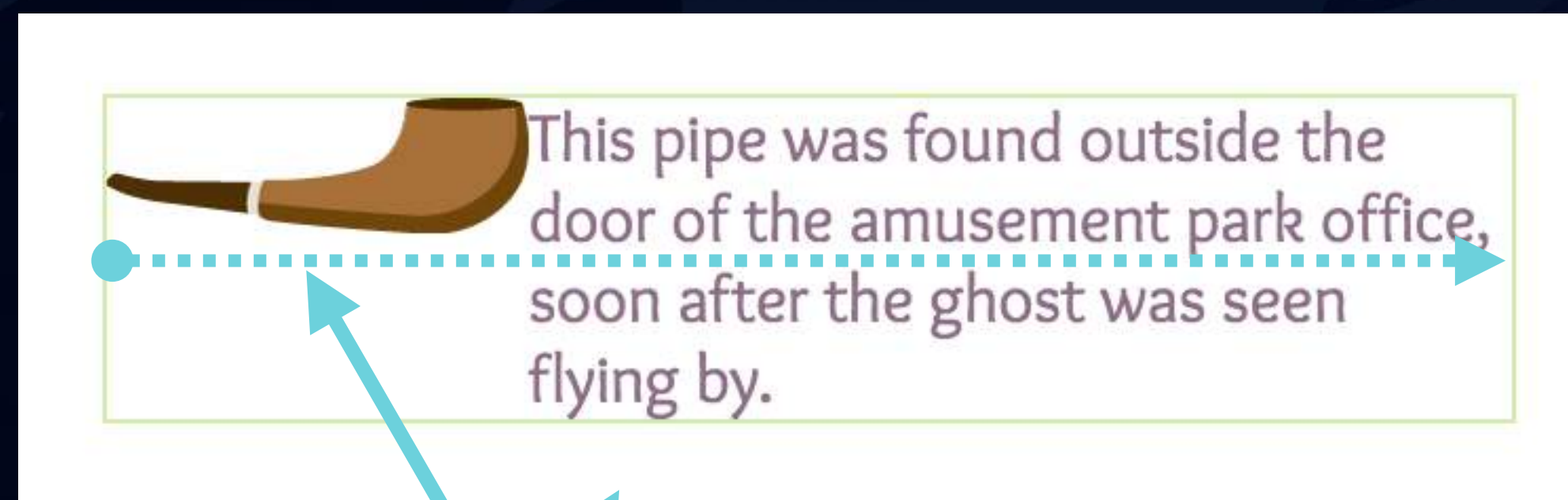
```
<article class="setup">This ...  
  <img height="150" height="150" ...>  
  This pipe was found outside...  
</article>
```

site.css

CSS

```
article {  
  border: 1px solid #d1eda6;  
  display: flex; }
```

No HTML element — just text



Two flex items fill the available space of a horizontal flex line

Flex Item Spacing

A spacing algorithm is used to distribute space of all flex items across a single flex line.

index.html

HTML

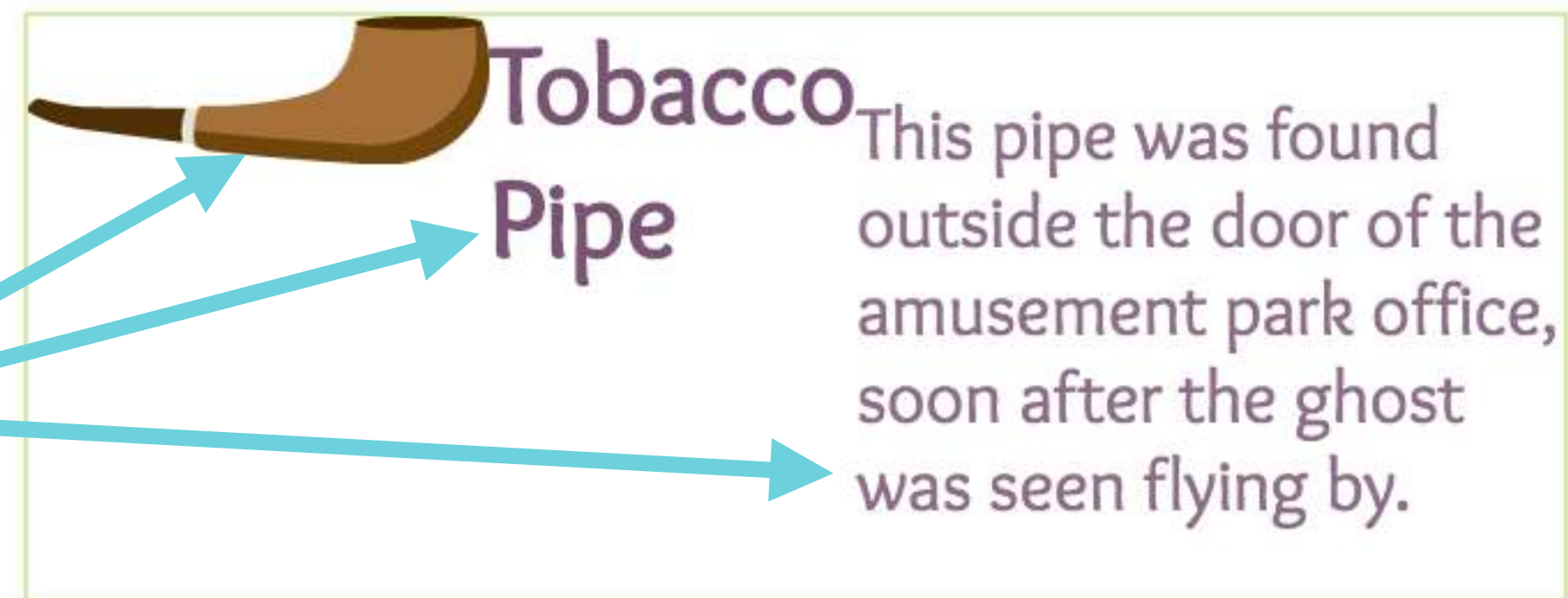
```
<article class="setup">This ...  
  <img height="150" height="150" ...>  
  <h3>...</h3>  
  <p>...</p>  
</article>
```

site.css

CSS

```
article {  
  border: 1px solid #d1eda6;  
  display: flex; }
```

Three flex items



Grouping Elements Into Flex Items

Grandchild elements do not become flex items.

index.html

HTML

```
<article class="setup">This ...  
  <img height="150" height="150" ...>  
  <div>  
    <h3>...</h3>  
    <p>...</p>  
  </div>  
</article>
```

site.css

CSS

```
article {  
  border: 1px solid #d1eda6;  
  display: flex; }
```

Two flex items

Two flex items



Tobacco Pipe

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